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THESIS

REQUIRED OPERATIONAL CAPABILITIES FOR URBAN COMBAT

by

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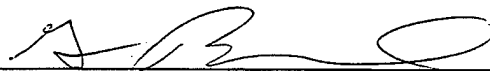
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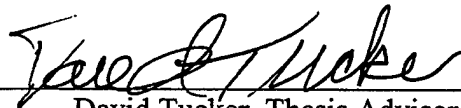
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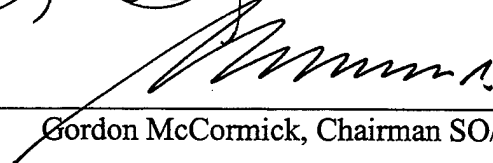
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ABSTRACT

Currently there exists no Joint doctrine to help commanders plan and coordinate the complex tasks of urban operations. Proposed Joint doctrine, JP3-06 DRAFT, attempts to alleviate this shortfall by providing commanders a framework and list of required operational capabilities to work with in the complex urban environment and states, "The complexity of urban terrain and the presence of noncombatants may combine to erode the effectiveness of current operational capabilities." The purpose of this thesis is to analyze the relevance of the proposed Joint doctrine's required operational capabilities (ROC): Command, Control and Communications (C3); Intelligence, Surveillance and Reconnaissance (ISR); Fires; Maneuver; and Force Protection. The thesis attempts to determine if these are the key requirements for planning and executing successful urban operations. Successful combat operations are defined by doctrine as the fighting force maintaining a combat effective strength of seventy percent and the capability of conducting follow on missions. This thesis will analyze four case studies to determine the most critical elements for successfully planning and executing urban operations. It will then compare those elements against the proposed Joint doctrine's required operational capabilities in order to determine the relevance of the ROC's.

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I INTRODUCTION

As long as urban areas were small, or could be easily bypassed, there was little reason to consider an urban kind of military theater. Under the changing importance of urban areas and the growing extent of cities and suburbs, however, it does seem useful not only to distinguish this type of environment but to characterize its specific effect on military strategy (Peltier and Percy, 1966, p. 119)

Currently the US military is not prepared to fight and win in an efficient or effective manner on tomorrow's battlefield. The US Army's MOUT (Military Operations on Urban Terrain) doctrine is almost 20 years old and fails to address the dynamic trends of recent urban battles. Also, the proper TTP's (Tactics, Techniques, and Procedures) for soldiers of all branches to fight in urban environments is virtually non-existent. Although we plan to fight as a Joint force, no Joint tactical manual exists at present for our commanders to plan and coordinate the complex tasks associated with Urban Operations.

Proposed Joint doctrine, JP3-06 Operational Concept for Joint Urban Operations, attempts to alleviate this shortfall by providing commanders a framework and list of required operational capabilities to work with in the complex urban environment. It states that "The complexity

of urban terrain and the presence of noncombatants may combine to erode the effectiveness of current operational capabilities." The purpose of this thesis is to analyze the relevance of the proposed Joint doctrine's required operational capabilities (ROC): Command, Control and Communications (C3); Intelligence, Surveillance and Reconnaissance (ISR); Fires; Maneuver; and Force Protection. The thesis attempts to determine if these are the key requirements for planning and executing successful urban operations. Successful combat operations are defined by doctrine as the fighting force maintaining a combat effective strength of seventy percent and the capability of conducting follow on missions.

Why is it so important to develop our ability to conduct successful urban operations? Aside from the opinion of many experts that urban conflict is inevitable due to the rise of urban populations, the most relevant factor suggesting the inevitability of urban conflict is the asymmetric advantages gained by the defender. The most notable advantages provided to the defender are the reduction of the US's superiority in maneuver, C3, and firepower, and the exploitation of the aversion of U.S. forces to cause collateral damage or civilian casualties.

Ironically these asymmetric advantages represent many of the ROC's that Joint doctrine deems critical to successful urban combat.

These advantages led one former adversary to change their national defense strategy. Following the invasion of Grenada, the Nicaraguan national defense strategy, which was based on traditional principles of conventional war, was dramatically revised. First, Nicaragua's Defense Minister Humberto Ortega recognized that his forces could not militarily defeat the US on an open battlefield. Second, knowing that the US would attack with overwhelming force, Humberto said, "We must resist as long as possible knowing how to attack, but also how to conserve our forces...We are going to make Managua the Stalingrad of Nicaragua" (Miranda, 1993, p. 228). The new national defense policy of Nicaragua outlined two high priorities regarding American soldiers:

To kill as many as possible in urban combat and to capture many who could then be used in negotiating better conditions for the departure of the rest. As Humberto said, 'make each city the gringos capture a Pyrrhic victory for them, both from the political as well as the military points of view [SCI]' (Miranda, 1993, p. 229)

With this documented past case in mind and in light of recent conflicts from Mogadishu to Serbia, the US can no

longer expect its enemies to meet them on an open battlefield. Desert Storm sent clear and decisive signals to the world that the US is the technical master of conventional maneuver warfare and the dominant world power. Hence, our future enemies may well utilize their urban centers, as the Nicaraguans planned, to reduce our technological and maneuver advantages in an attempt to bog down US forces in the high casualty producing urban environment in order to weaken US resolve.

These asymmetric advantages will drive our enemies to attempt to draw the US into urban combat. Historically urban warfare has caused the highest casualty rates among combatants in modern warfare, as well as horrendous civilian casualties. The battle for Stalingrad during World War II clearly demonstrated the horrors of urban combat with units losing over 50% of their combat strength.

In Stalingrad, the 95th Rifle Division arrived in the city in late September 1942 with a strength of approximately 7,000 men. By 8 October the division had 3,075 men remaining; on 14 October the division was evacuated with roughly 500 men. The 37th Guards Rifle Division arrived the night of 2-3 October 1942 with 7,000 men and was removed from fighting in the tractor factory on 15 October. Strength when evacuated was 250 men (Glenn, 1996, p. 2).

These historically high casualties present the US with a serious manpower problem due in part to the recent draw down. Joint doctrine is attempting to outline an operational framework and ROC for planning and executing urban operations in hope of reducing the high number of combat troops necessary to conduct urban operations. This thesis will analyze the proposed Joint doctrine to determine if the stated ROC's will truly enhance the commanders' abilities to plan and fight in an urban environment.

This thesis will test the relevance of the five ROC's against four case studies and determine the most critical elements for successfully planning and executing urban operations. The criteria for analysis will follow Army doctrine by assigning a Trained (T) status for units that successfully execute the ROC; a Practice (P) status for units that met the critical tasks associated with the ROC, but still require further training to meet all tasks; and an Untrained (U) for units that failed any critical tasks associated with the ROC.

The following abridged definitions outline the tasks associated with each ROC:

Command, Control and Communications (C3)-Command and control procedures and systems must be

flexible and adaptive to account for the uncertainty inherent in combat. Command and control systems must adapt readily to urban terrain. Communication devices must function in multi-dimensional urban surroundings ensuring reliable communications between the headquarters and tactical command posts that may be mobile. We must overcome the restrictions urban terrain imposes upon the ability of component commanders to monitor and direct the activities of subordinates. Joint forces must be able to navigate with precision and report locations in three-dimensions. Communications networks of sufficient bandwidth must be available, and solutions to the communications interference unique to the urban environment must be found.

Movement and Maneuver- Dominant maneuver in future urban operations will call for the capability to move combat power rapidly through three-dimensional urban terrain. Surface movement includes not only conventional methods of negotiating roads and reducing obstacles, but also the means to create new lines of communications or avenues of approach through structures, which might be fully or partially intact. Sub-surface movement will exploit urban subterranean infrastructure. Super-surface movement will allow joint forces to create and use lines of communications and avenues of approach via the upper stories of buildings. Vertical movement will be conducted between the surface, sub-surface, and super-surface zones. Finally, mobility in future urban operations will include air movement by assault support aircraft.

Intelligence, Surveillance, and Reconnaissance (ISR)- The ability of the Joint Force Commander, or any unit involved in urban operations to both sense the battlespace and to accurately assess information regarding the terrain and presence of friendly, enemy, and noncombatant personnel is vital. The real key to ISR in urban operations is HUMINT, with its many origins, placing great emphasis on linguistic skills and cultural perception. Sensors should provide for three-dimensional interior rendering, with the capability to display, store, and transfer

information between units. Other systems should provide a capability for remote interior sensing, perhaps using equipment mounted on aircraft, or even in space.

Fires- The nature of urban terrain presents challenges in employing fires. Limited visibility affects targeting, fire support coordination, and battle damage assessment. Tall structures become intervening crests for surface-delivered fires. The cover afforded by the terrain affects penetration characteristics and fuse functioning, reducing weapons effects below the threshold for successful engagement. The fire support system must adapt by providing for target locations and designation in three-dimensional terms, extremely precise ordnance delivery (e.g. to a specific room in a building) munitions with variable penetration and explosive characteristics, and the coordination of lethal and non-lethal fires against different targets near one another. Firepower must be available for highly accurate longer-range engagements, yet be affordable enough to be available for high volume interdiction fires to support the joint forces.

Force Protection- Real time awareness of the location and activities of all elements of the joint force, to include special operations forces, is essential in minimizing fratricide. Joint forces will use force protection measures adapted for future urban operations to facilitate maneuver with reduced risk of casualties. Individual equipment and measures such as combat identification, combined with collective protection efforts might serve to lower the incidence of some types of casualties. Protective measures required for full dimensional protection in future urban operations also include special medical capabilities. Individuals might be wounded while in locations from which it is difficult to evacuate them. Systems must be in place to provide for prompt and effective care of the wounded under such challenging circumstances (Sumner, 1999, pp. 8-10).

While these definitions may be broad in nature, they do provide the necessary framework to conduct the critical analysis of the case studies. This analysis will determine if the ROC's are relevant to conducting successful urban combat. Finally, I will discuss the utility of Joint doctrine's required operational capabilities, discuss their limitations, and make recommendations for future research.

II THE BATTLE FOR SUEZ CITY

Best policy in war-thwart the enemy's strategy,
Second best-disrupt his alliances through
diplomacy,
Third best-attack his army in the field,
Worst strategy-attack walled cities.
(Sun Tsu, The Art of War)

THE HORRORS OF URBAN COMBAT

The battle for Suez City, during the Yom Kippur War 1973, Pitted two modern well trained armies against one another in an urban environment. The Israelis were generally trained, organized and equipped along Western lines, while the Egyptians were trained, organized, and equipped along Soviet lines. What caused the Israelis to blunder into Suez City? The limited time available to plan the mission before the execution led to the poor application of the principles of the Required Operational Capabilities (ROC's) C3, ISR, and Fires. While the overall significance of this battle had little to do with the outcome of the war, the battle reiterated to the world the horrors of urban combat and provided valuable lessons on how not to conduct offensive urban operations.

Prior to analyzing these failures in detail, let us briefly examine the events leading up to the battle for Suez City as well as a description of the city itself.

BACKGROUND

Prior to the war, Suez City had a population of about 250,000 and was itself an industrial center with numerous plants and oil refineries. The city occupied approximately fifteen square miles in area and to this day is strategically located on the northern banks of the Gulf of Suez, commanding the entrance to the Suez Canal. Two major railway lines bisect the city paralleled by two divided highways running east to west and north to south. At the time of the battle, the city consisted of buildings from two to five stories tall as well as a few high-rises densely packed into the downtown area. In all respects, the city presented a major obstacle to any enemy offensive operations (Adan, 1980, pp. 409-410).

Following the Six Day War of 1967, the Israelis occupied the territories of Suez, West Bank and Gaza in order to secure their borders against future Arab threats. The Arabs suffered a humiliating defeat for which they planned atonement. The Yom Kippur War of 1973 was the

Arabs grasp at retribution for the egregious defeat that they suffered by Israeli hands. Initially the Israelis were caught off guard at the onset of the war and suffered several defeats that greatly threatened Israel's future existence. Had the Egyptians continued to maintain the initiative, they possibly could have re-conquered all of Sinai and threatened Israel's southern border. The Egyptians, however, deliberately employed a limited strategy aimed at regaining the Suez Canal. This strategy failed to exploit their initial success and allowed the Israelis the opportunity to regroup and launch a successful counter-offensive. The daring and bold move by the Israeli Defense Force (IDF) to cross the Suez Canal caught the Egyptian Army flatfooted and led to the Egyptian Third Army being surrounded by the IDF. From the twentieth to twenty-third of October, Israeli forces under the command of General Adan were mopping up Egyptian forces and captured over 8,000 POWs. The overall premise was that the Egyptian Army was in total retreat, providing only token resistance to slow the Israeli advance

PLANNING THE BATTLE FOR SUEZ CITY

General Adan was able to surround Suez City by the evening of 23 October, sealing off the Egyptian Third Army's escape route. In an attempt for total victory, General Adan requested permission from his superior, General Gonen, to attack Suez City. General Gonen told him, "if it is to be a Benghazi, yes; but if it is to be a Stalingrad, no" (O'Ballance, 1978, p. 258). In other words, if it is well defended do not attack. The second cease-fire was due to take effect the following morning at 0700 hours; therefore, General Adan opted for a hasty attack commencing at 0530 hours against what he presumed to be a lightly defended city (Adan, 1980, pp. 400-425).

General Adan's decision to attack so soon seems misguided, because conducting successful urban combat requires detailed planning and support. Executing a successful hasty attack requires a great deal of intelligence and coordination. First, detailed knowledge of the enemy's location and disposition are imperative to conducting a successful hasty attack. Second, sufficient coordination between units must be conducted to ensure proper execution. If either of these tasks is glossed over, the probability of success is significantly

diminished. The Israelis lacked the knowledge of the enemy's disposition and lacked the necessary coordination and support between their units. These shortcomings coupled with the defenders asymmetric advantages gained in an urban environment greatly reduced the probability of conducting a successful urban attack. As Sun Tsu aptly points out in the above quote, the worst strategy is to attack walled cities; however, the Israelis demonstrated that an even worse strategy is to conduct hasty attacks against walled cities.

Israel's haste in planning the operation led to failures in several critical operational capabilities. The most crucial failures were in Command, Control and Communications (C3), and Intelligence, Surveillance and Reconnaissance (ISR). Command and control was complicated by the arrival of new units that had never worked together, resulting in an uncoordinated attack that left hundreds of soldiers cut off by enemy units. The pressure to seek a quick victory prior to the enforcement of the negotiated cease-fire did not allow General Adan to conduct proper ISR operations, resulting in the tragic loss of over eighty soldiers and numerous tanks and armored vehicles. The

Israelis' failure to conduct proper ISR operations constituted a fundamental tactical error.

As noted above, in order to conduct a hasty attack successfully, knowledge of the location and disposition of enemy forces is required, especially in an urban environment where offensive operations are more difficult. Therefore, one would expect that a great deal of reconnaissance and planning were conducted prior to the assault. This, however, was not the case. As General Adan states,

The entire operation was in the nature of a last-minute, grab-what-you-can action..A proper attack requires considerable preparation. In this case, all my infantry was separated and far from the tank brigades that were bivouacked near Suez City (Adan, 1980, pp. 410-411).

Less than twelve hours elapsed from the time preparations began to the launching of the initial assault, with the required infantry units arriving only hours prior to the assault. Why did General Adan knowingly violate proper preparations needed to successfully capture Suez City?

There seems to have been little pressure from higher headquarters to press the advantage and, in fact, General Gonen directed General Adan not to attack Suez if it was to be a Stalingrad. In General Adan's book, On the Banks of the Suez, it shows that he became fixated on the

destruction of the Egyptian Third Army. He continually had his forces conducting what he termed "mopping up operations" in an effort to cause the cease-fire to fail, allowing him to continue the attack. Adan states, "At about midnight I informed Gonen that since the cease-fire was not being observed, I was going to continue fighting on the following day. I added that I did not expect the cease-fire to be enforced" (Adan, 1980, p. 402). By rushing his attack prior to the implementation of the cease-fire, General Adan doomed his forces to needless slaughter in the horrors of urban combat.

THE ASSAULT ON SUEZ CITY

General Adan planned for the initial assault to begin at 0530 hours on 24 October with a massive artillery and air bombardment; however, poor weather and the adoption of the cease-fire limited the air attack to only four squadrons, hardly the amount of close air support required for the operation. General Adan planned for his two brigades to launch a simultaneous attack against the city's center and industrial base. The attack, however, lacked coordination and soon broke down into two separate assaults with Gabi's brigade meeting little resistance in the

industrial area and Aryeh's brigade being delayed by enemy ambushes along the approach to the city. This delay, along with the lack of supporting fire, allowed the Third Army to concentrate its efforts against Aryeh's brigade once it entered the city. Aryeh reported to Adan that, "The picture is not yet clear," and requested more supporting fire to cover his forces (Adan, 1980, p. 414). Aryeh subsequently initiated his assault without proper preparations or regard for the combined arms approach necessary to conduct urban operations. The infantry battalion that was transferred to his command was delayed and instead of postponing the attack he assaulted the city with his armored battalion. The results of the initial assault into the city were horrendous. The soldiers in the mounted, armored column were sitting ducks for the well-positioned Egyptian forces and the following onslaught began:

When the column reached the Arba'in junction, it came under a withering blast of fire. Simultaneously it was hit by flat trajectory fire from guns, antitank missiles, hand grenades thrown from balconies, and by bursts of automatic fire leveled at them by Egyptian soldiers who suddenly leaped out from the buildings. Within minutes nearly all the commanders were hit. In the entire battalion only four officers were left who could function; all the rest were slouched over in their turrets, dead or wounded. Control

of the battalion was lost, the radio net jammed by too many cries for help (Adan, 1980, p. 414).

In a little over one hour, all the vehicles of the lead battalion were hit with only a few of the follow on armored vehicles able to withdraw from the carnage of the Egyptian's kill-zone. In the melee that followed, the armored vehicles abandoned their infantry soldiers in a desperate effort for survival. Once the ambush was initiated, the infantry forces dismounted and under withering enemy fire were forced to take up defensive positions within several buildings. Isolated and cut off, these forces fought desperately throughout the day and into the night with only a couple hundred successfully making it back under the cover of darkness to friendly lines. General Adan stated that the price he paid for the abortive attack was "appalling: 80 killed or missing, about 120 wounded..." and 28 armored vehicles destroyed (Adan, 1980, p. 422).

After this battle, another cease-fire was brokered, and this time it was due to take effect by 0700 hours on 25 October. However, the Israelis once again engaged Egyptian forces prior to the UN observers' occupation of the territory. The final assault to capture Suez City was launched at 0800 hours with a squadron of tanks supported

by infantry, but this force too was repelled by the well-entrenched Egyptian forces. The fighting cost the Israelis another 10 tanks with numerous casualties. In total, the hastily, ill- prepared attacks on Suez City cost the Israelis a personnel loss of 68 officers, 23 pilots, 373 soldiers killed or wounded, and a materiel loss of 38 armored vehicles destroyed (O'Ballance, 1978, p.262). While Israeli forces suffered tremendous losses, the Egyptians' losses were reported as light. General Adan expressed his disappointment in the cease-fire as unfortunate because he was unable to finish the job (Adan, 1980, p. 425). Perhaps it was this incredible fixation to destroy his enemy that clouded his judgment and rushed him into the fatal assaults on Suez City.

THE PLANNING PROCESS

Time is perhaps the most valuable asset in planning military operations and is usually in short supply. In this particular case, events seemed to have overtaken reason in the preparation for the assault on Suez City. The impending cease-fire drove the Israelis to conduct a risky, hasty attack on the city. In retrospect, General Adan states,

I regret that the mission was assigned, and even more that I did not object to it...The capture of a city is always a complicated operation. A city offers many advantages to a defender, enabling him to put up stiff resistance in house-to-house fighting. So the conquest of a city always involves a good deal of fighting, takes time, and results in substantial losses (Adan, 1980, pp. 427-428).

Had a proper analysis of the situation been conducted, I believe that General Adan, in his own words noted above, should have rejected the mission due to insufficient time to prepare for the complexities of urban combat (Adan, 1980, pp. 426-430).

LACK OF OPERATIONAL CAPABILITIES

The Israelis suffered from serious problems within their C3, ISR, and fire support operational capabilities. First, let us examine the problems with command, control and communications. As General Adan stated, capturing a city is a complex operation; therefore, the need for efficient and effective command, control, and communications is increased. One would expect that due to these complexities, General Adan would focus his command on this operation; however, he was conducting simultaneous operations with his division that divided his efforts and ability to control events. Besides capturing Suez City,

General Adan was charged with mopping up the West Bank's greenbelt, seizing the ramparts in his sector, cutting off the Third Army's water supply, and seizing a bridge to enable the IDF to cross the canal. These missions alone constitute a serious command and control problem not to mention taking on a new task of capturing a city. Command and control was further complicated by the attachment of non-organic infantry who were rushed to the division in support of the assault. These forces had insufficient time to regroup and coordinate with the armored forces prior to the assault, hindering command and control. The result was disastrous and their inevitable extraction cost the lives of numerous soldiers. Also, the air bombardment, which lasted approximately thirty minutes, hardly provided the amount of preparatory fire necessary to reduce the Egyptians' defenses, and completely failed to cover the initial assault into the city that took place nearly two hours following the bombardment. These forces lacked the training to conduct combined operations and had never worked together prior to this operation. Once the battle ensued, their lack of integration became painfully apparent as they failed to support the armored assault and were soon cut off and surrounded.

In order to properly command and control events, commanders rely on effective communications. Urban environments impose serious communications problems such as the screening effect of buildings that block radio communications. This screening effect caused delays in communications and loss of control. The Israelis lost contact with Aryeh's brigade following the onslaught due to Egyptian jamming, screening effect, and poor communications discipline (Adan, 1980, pp416-417). Cordesman and Wagner stated that,

Israeli C3 experienced severe problems. Assets were not well organized, secure or given proper regional or central battle management. The communications gear was of moderate quality at best...On a number of occasions, communications broke down and senior commanders lost track of what their subordinate units were doing (Cordesman, Wagner, 1990, p. 49).

The lack of effective communications reduced General Adan's ability to coordinate the operation and provide effective counter-fires to cover the withdrawal of the besieged infantry. Overall, Israelis' poor communications inhibited command and control, resulting in numerous casualties.

The inability of the commander to focus his division on the critical task of seizing the city, to properly integrate his forces prior to the assault, or to establish

effective communications led to the breakdown of C3, resulting in numerous casualties and mission failure.

The lack of ISR operations also significantly led to high casualties sustained in the conflict. In fact, had a proper Intelligence Preparation of the Battlefield (IPB) been conducted General Adan would have seen that Suez City was heavily defended and that an attack would violate the guidance that he should not attack if it was to be a Stalingrad. In fact, the operation had no significant impact on the overall war, as General Adan stated, "In my view, the capture of Suez City could not have contributed to the encirclement operation itself...[or] to the surrender of the Third Army" (Adan, 1980, p. 426). By simply sending a scout platoon to reconnoiter the area, General Adan could have developed a clear picture of Egyptian defenses and advised General Gonen against the assault. The fact that the simple and tactically sound procedure of conducting reconnaissance was ignored due to the pressures of a pending cease-fire directly led to this disastrous attack and cost the Israelis dearly. Why did the Israelis follow up the attack on the proceeding day when it was clear that the city was heavily defended and violated the commander's guidance? This attack cost the Israelis another 10 armored

vehicles and over 100 casualties without any tactical gains. This clearly demonstrates a breakdown in the critical operational capabilities of C3 and ISR operations. The combination of poor maneuver techniques and the lack of supporting fires led to the disastrous assault. General Adan's assumption that the city would be lightly defended and the fact that he did not conduct reconnaissance operations led to his misapplication of the principle of mass, "the synchronization of all elements of combat power where they will have decisive effect on an enemy force in a short period of time" (FM 100-5). For example, fire support systems are one of the critical operational capabilities proposed by doctrine, and General Adan failed to properly synchronize and prioritize his fires, leaving his assault force vulnerable to enemy fires. Poor maneuver techniques such as those utilized by the IDF to attack the city in a mounted column formation led to the deaths and serious injury of nearly every officer in the lead battalion. The operational capability of fire support was clearly violated as insufficient fires were brought to bear on the target to either reduce the enemy or to cover the initial assault, resulting in horrendous casualties. This lack of a combined arms approach led to the destruction of

over half the armored force and the isolation of the infantry battalions in less than one hour.

General Adan excused his approach of utilizing an armored thrust into the city by arguing that he expected little resistance, assuming that a massive show of force would overwhelm the enemy. One can see that a massive show of force is no substitute for a well planned and synchronized combined arms assault (Adan, 1980, pp. 428-430).

CONCLUSION

The above analysis identifies failures in the critical operational capabilities of C3, ISR, fire support, and the poor tactical maneuvering of forces as the causes for this operation's failure. Also, the fact that the decision to launch the mission was hastily executed compounded these problems and resulted in numerous casualties and deaths. General Adan's attack plan was based on the assumption that the city was lightly defended and that the Egyptian Army was on the brink of collapse. There were also self-imposed time pressures of securing the city prior to the implementation of the cease-fire affecting the preparations for the mission.

Poor tactics led to high casualties and the ultimate failure to seize the city. Tactically, the principle of movement and maneuver was clearly violated by dividing the division to conduct numerous missions, rather than focusing on moving combat power through the treacherous urban terrain. Synchronization was hindered by the late arrival of the infantry forces; the early withdraw of the air bombardment, and the lack of supporting fires to cover the assault.

In the heat of battle, General Adan seems to have been caught up in the momentum of Israel's overall success, which rushed him into executing the hasty attack without regard for the need for proper ISR operations.

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III THE SIEGE OF BEIRUT 1982

We will not reply...in words. Our reply shall be couched in terms of lead...In roar of shell and shrapnel and in whine of machine guns will our answer be couched.

(Jack London in The Iron Heel)

Following months of border attacks and artillery duels during the spring of 1982 between the Israelis and the Palestinian Liberation Organization (PLO) forces, the Israeli Defense Force (IDF) launched an invasion into Lebanon in order to stop the PLO attacks. During the opening day of the invasion, Israeli forces once again found themselves confronted with the thorny task of urban combat. The initial results were just as disastrous at the city of Tyre, the first urban center encountered during the war, as they were during Suez City:

...The lead battalion lost its way, and instead of bypassing the city and putting a blocking force in place, it stumbled right into the city and into a PLO [Palestinian Liberation Organization] ambush. Trying to back out, it stumbled into yet another ambush. The result was a number of casualties, and the battalion commander and an enlisted man taken prisoner; later they would be tortured and executed and their bodies thrown in a well (Gabriel, 1984, p. 83).

Not wanting a repeat of high casualties seen during the Suez City operation or the more recent debacle in Tyre, the

Israelis opted for a different approach when attacking Beirut.

Following the Israeli request for Syrian forces to withdraw from Beirut, the Israelis launched one of their most devastating bombardments of the city, with an estimated 250 killed and 900 wounded. War correspondents Eric Silver and James McManus for the *Guardian* reported on June 12, 1982,

A few minutes before the mid-day cease-fire, during the heaviest bombing raid on Beirut since the invasion began six days ago, Israeli jets pounded a Palestinian neighborhood in the southern suburbs, bringing down a six-story building (reportedly housing al-Fatah headquarters) and damaging dozens of others...During the raid, Israeli gunboats inexplicably shelled civilian areas of Muslim Beirut bringing terror to the shopping area...

So the stage was set for the upcoming battle for Beirut where the Israelis continually chose long range precision fires over the grueling house to house fighting of urban combat.

BACKGROUND

From the 1970's to early 1980's, the PLO entrenched themselves in Lebanon and stepped up their terrorist attacks against the Israelis. Numerous exchanges of

artillery fire echoed along Israel's northern border between the PLO and Israeli Defense Force (IDF), with terrible casualties sustained by the civilian population. In the months preceding Israel's invasion, the PLO also launched several border raids against civilian targets to include schools and busses. Following these attacks, a tenuous cease-fire was brokered. The PLO stepped up its attacks overseas, killing 15 and wounding 250 Jews from July 1981 to June 1982 (Sharon, 1989, pp. 431-433). These devastating attacks began to take their toll on the Israeli administration. The Israeli Cabinet planned to retaliate following several terrorist attacks in March and April in order to deliver a knockout blow to PLO forces should the PLO refuse to cease its hostilities against Israelis. Israelis did not have to wait long, as the PLO attempted to assassinate the Israeli ambassador to Great Britain on 3 June 1982, igniting the fuse to the invasion. On June 4, the Israeli airforce launched its heaviest attacks on Beirut since the cease-fire, attacking military targets in and around Beirut in response to the assassination attempt. Prime Minister Begin's press secretary, Uri Porat, stated, "Israel's action today ended a long period in which Israel showed restraint, and with this murderous attack Israel

could not but act in the way it did" (Claiborne, 1982, p. A1). The PLO replied to this attack on June 5, with heavy artillery attacks along the northern border towns in Israel. These attacks sealed the decision to invade and orders were sent on the evening of June 5 for the IDF to attack on the following day (Gabriel, 1984, pp. 61-62).

The Israelis deployed over six divisions for the invasion and were faced by two Syrian divisions and 15,000 PLO soldiers (Gabriel, pp. 80-81). Once the Israelis maneuvered into positions sealing off Beirut, they were faced by one Syrian brigade and three light battalions positioned south of the airport, two Syrian brigades augmented with ten light battalions positioned along the Beirut-Damascus highway, and between 12,000-14,000 PLO soldiers in and around Beirut (Gabriel, 1984. pp. 107-109, 132). The Israeli forces greatly outnumbered their foes and had established complete air superiority by the end of June; thus setting the stage for the siege of Beirut.

Beirut City is the capital of Lebanon and is a complex urban center that sprawls over approximately five square miles. To the north and west the city is bordered by the Mediterranean Sea, and to the south and east by steep hills and mountains that surround the city. The city is

geographically divided into eastern and western sectors by the Beirut River that runs south to north. Demographically the city was divided into two regions, with the Muslims controlling the western portion of the city and the Christians controlling the eastern section. The population was estimated at one million in 1982, with an estimated 500,000 still remaining at the beginning of the siege. The downtown area in the western section, consisting of Western style high-rises constructed with reinforced concrete, was typical of a modern, Western city. The eastern section contained fewer high-rises, consisting mainly of four to five story sandstone buildings. The streets throughout the city were wide enough to accommodate armored traffic, while the parks and steep slopes created numerous ambush sights along these high speed avenues of approach (Burton, pp. 71-74).

OPERATION PEACE FOR GALILEE

The initial planning for this operation started as far back as 1978, following Israel's unsuccessful Litani Operation that was supposed to reduce the PLO's military activity. The lessons of the Litani Operation were not

lost on the IDF. As Defense Minister Sharon stated, "...to effectively deal with the PLO in southern Lebanon something more than a simple retaliation exercise, even a large one would be required" (Sharon, 1989, p. 425). The result of this planning led to the adoption of the Oranim Plan. Key to this plan was the first stated objective of the overall plan: "1. The main objective is the annihilation of the terrorist threat, i.e., the destruction of their military strength as well as their entire infrastructure, *including in particular in Beirut*" [emphasis mine] (Sharon, 1989, P. 436). The objectives for this operation were clearly outlined and the plan was refined and briefed to all operational commanders by the Defense Minister himself. By properly preparing and planning for the operation, the IDF avoided the errors that were caused by the hastened attack on Suez City and greatly improved their success during the siege of Beirut.

Due to the precise planning and coordination conducted prior to the invasion, the IDF met little resistance in the opening phase of the invasion. At the end of the third day of battle, the Israeli assault pushed to the outskirts of the Beirut airport in the west with the heaviest fighting coming in the cities of Tyre and Sidon. In the center of

the battlefield, the Israelis were able to outflank the Syrian divisions in the Bekaa Valley, destroying seventeen of nineteen SAM missile batteries, and over ninety Syrian aircraft while sustaining no losses themselves. The outcome of these battles was critical to the siege of Beirut as they ensured air supremacy and cut off Syrian forces in the Bekaa Valley from Beirut (Gabriel, 1984, pp. 93-99).

While the initial phase of the operation was able to attain all of its objectives, the succeeding weeks found the IDF making painfully slow gains against the Syrian forces defending the southern approaches to Beirut and along the Beirut-Damascus highway. Several cease-fires between Syria and Israel broke down, leading the IDF to launch a massive offensive on June 22, against Syrian positions along the highway in an attempt to drive them to northern edge of the Bekaa Valley. For four days the battle to control the highway raged with heavy losses on both sides. Eventually, the Syrians were forced to withdraw from the highway, thus sealing off the last high-speed avenue of approach to the city. Now, the IDF was confronted with the hardest target of the war, Beirut City (Gabriel, 1984, pp. 101-112).

THE SIEGE OF BEIRUT

Beirut presented the IDF with a tactical and strategic dilemma. First, how should the IDF eliminate the enemy forces from the city? Second, strategically the war was losing favor in Israel; therefore, the IDF could not accept high casualties as this would certainly split the Israeli people and could have long term disastrous effects on Israeli security. Defense Minister Sharon continually echoes these concerns in his biography:

Arafat and his friends needed no one to point out how significant Israel's domestic political broils could be to their survival. Documents the IDF found in Beirut after the terrorists' expulsion told the story eloquently. 'The most important thing,' said a PLO chief in one recorded meeting, 'is to increase the demonstrations all over Israel...' Our only hope,' said a third [chief], 'is in those demonstrations that are taking place in Tel Aviv' (Sharon, 1989, p. 483).

The growing unrest at home and the need to keep casualties low led to a campaign of siege warfare. Up to this point over fifty percent of all casualties on the Israeli side occurred in the urban fighting in and around the cities of Tyre and Sidon, which were not nearly as complex obstacles as Beirut promised to be. Therefore, the

IDF employed a policy of siege warfare on Beirut while attempting to allow civilians a means of escape. Tactically, the IDF isolated Beirut in the initial phases of the operation as noted above. Also, tactical assaults were executed to secure key objectives such as the airport and other key lines of communications. While close quarters combat occurred during these assaults they were minimized to only strategic targets necessary to tighten the siege on Beirut or enhance the Israeli position at the bargaining table. As Gabriel states in his personal account of the siege:

A second tactic was to minimize the risks to its own troops. The IDF would keep up the ground pressure on PLO strong points, but only at the small-unit level, heavily supported by artillery and tank fire...The aim was, clearly, not to break through to the downtown areas, where the battle would become a free-for-all in which large numbers of casualties would be suffered. Rather, the intention was to engage the PLO at carefully selected strongpoints and break the PLO's will rather than forcing a military decision (p. 138).

The majority of combat was conducted at long ranges from the precision fires of Israeli jets and direct-fired artillery, to massed fires of unguided bombs and indirect artillery fires. The latter caused enormous collateral damage and civilian casualties that the PLO then utilized to win the propaganda war, while the former reduced the

PLO's and Syrian's ability to fight and kept the initiative with the Israelis.

Although the Israelis held the upper hand both tactically and strategically, their inability to counter the PLO's propaganda, depicting the IDF's siege bombardment as ruthless and indiscriminate, created great political pressures between the US and Israel.

The duration of the siege was wearing on the IDF and the Israeli government. Negotiations were making little progress and cease-fire after cease-fire was being violated, with no immediate end in sight. Prime Minister Begin summed up the critical nature of the situation in a speech before the cabinet:

Gentlemen, if we continue to remain at the gates of Beirut as we are doing now, we may bring disaster on ourselves...if we do not enter Beirut, the victory will be the PLO's. Arafat will claim that the PLO is alive in position, and armed...Gentlemen, we are at a turning point that may lead to a national crisis (Sharon, 1989, p. 486).

This speech led the IDF to step up its pressure on the PLO to withdraw from Beirut by increasing the bombardments against the city. These attacks further strained the political tensions between the US and Israel and President Reagan transmitted a harsh letter to Begin accusing the IDF of using disproportionate force causing the unnecessary

deaths of civilians, and warned Begin that the relationship between them was in the balance (Gabriel, 1984, p. 490). Despite these warnings, the Israelis continued to hold firm to their demands that all the terrorist forces withdraw from Beirut prior to an Israeli pull back. Realizing that time was not on his side, Sharon ordered a series of escalated attacks to secure strategic centers in Beirut and stepped up the artillery and air attacks against terrorist targets. These attacks seemed to have caused the negotiations to move forward, as Philip Habib, US negotiator, issued an ultimatum to Arafat, giving the PLO only forty-eight hours to accept the Israeli demands. At this, Arafat opted to save what forces he had and to spare Beirut any further destruction by accepting the agreement on 12 August (Sharon, 1989, pp. 490-492).

Due to their ability to conduct a successful urban operation, the Israelis finally accomplished their major goal of eliminating the PLO from Lebanon. Incredibly, of the 35,000 Israeli ground forces involved in the siege of Beirut, only 88 soldiers were killed and another 750 wounded, leaving the units at 97% mission capable [34,162/35,000] (Gabriel, 1984, p. 167). Clearly, this urban operation was a resounding military victory for the

IDF, and a major setback for the PLO and Syria. Was the Israeli success due to improvements made in the required operational capabilities or some other factors?

REQUIRED OPERATIONAL CAPABILITIES

The Israelis made great improvements in their C3, which helped lead them to victory. First and foremost, the Israelis did not stumble into this urban conflict as they had during the hastily executed attack on Suez City, but had been planning the operation since 1979. With clear objectives outlined in the plan, command and control was simplified and understood at the lowest levels. As noted earlier, Defense Minister Sharon briefed his commanders personally on the operation several times prior to the invasion. Sharon stated, "...I wanted them [commanders] to be sure that all the senior and junior officers knew the entire scope and meaning of the objectives incorporated in the full military plan. I kept nothing back at these meetings" (Gabriel, 1984, p. 436). Also, he personally visited the battlefield before and during the invasion enhancing his battlefield awareness and ability to control the situation. His personal involvement and close proximity reduced communication problems while increasing

the morale of his forces. For example, Sharon visited East Beirut to assess the situation, "...I flew north, intending to get a firsthand report from the forward position southeast of Beirut..." He was worried that Israeli positions might be overrun. At one point he remarked, "Should wide-scale fighting erupt again, the Syrians were in position to easily overrun our corridor on the highway. With this as background, on the eighteenth I ordered the IDF to prepare an attack eastward down the highway" (Gabriel, 1984, pp. 472, 476). Sharon continually chose such strategic targets to attack throughout the siege to include the attack on the airport and the final ground assault against PLO strongpoints.

Israeli forces were also reorganized to deal with this complex operation. For the first time the IDF developed a Corps-level headquarters with centralized C3 and real time intelligence links from remote-piloted vehicles (RPV's). The Corps headquarters helped to better manage the complexities of the operation, reducing control problems that were prevalent during the Suez City operation. For example, the Corps headquarters reorganized its tactical units differently from the attack on Suez City. Combined arms teams were organized well in advance and were utilized

to attack key strategic centers in the city. The days of leading with tanks were over, as paratroop infantry and engineer units led the way supported by armored forces and massive amounts of indirect fire. This strategic use of ground forces coupled with their unique reorganization enabled the IDF to conduct successful urban combat with an unprecedented low casualty rate of 3%. Also, the Corps commander had all Israeli forces under his command, eliminating the complex regional command structure seen during the Yom Kippur War that caused great delays in reassigning units from one command to another.

The Israelis also made improvements in their communications by utilizing E2C command aircraft as mobile communications platforms and utilized secure communications throughout the invasion. Also, they reduced the enemy's ability to communicate by jamming their radar and communications centers, which helped establish command of the sky (Gabriel, 1984, p. 99). The Israelis conducted an extensive psychological warfare campaign by beaming radio broadcast at enemy forces telling them that they could leave the city safely, which in Gabriel's opinion contributed to the PLO's withdrawal rather than their fighting to the death (Gabriel, 1984, pp. 137-139).

Improvements in C3 were followed by technological leaps in ISR. The siege on Beirut saw the first use of RPV's by the IDF to jam air defense sights and to provide real time intelligence back to Corps headquarters. The use of these Remotely Piloted Vehicles (RPV's) was credited with the destruction of the Syrian SAM batteries at no loss to the Israeli air force. Had these SAM's not been destroyed, they would have provided effective air defenses for Beirut and the highway, greatly degrading Israeli close air support. This operation insured Israel's air superiority in the region and greatly added to the success of urban operations. Air superiority further aided the overall intelligence effort, as reconnaissance aircraft were able to provide early warning of Syrian efforts to reinforce. For instance, prior to Israel's occupation of the Beirut-Damascus highway, Syrian forces tried to reinforce their units in Beirut, but met with disaster:

Syrian forces in the Bekaa and along the Damascus highway couldn't reinforce their units without being spotted by Israeli intelligence and attacked on the way to the battle area. On a number of occasions, Syrian attempts to reinforce resulted in large numbers of tanks and APC's being destroyed while still on their transporters (Gabriel, 1984, p. 120).

The ability of Israeli intelligence to provide real time data enabled the IDF to further isolate forces in Beirut and tighten the siege.

While overhead imagery is nice to have, there is no substitute for human intelligence. The Mossad had established long term ties with the Christian movement in Beirut and utilized these indigenous forces to provide intricate knowledge of enemy positions and camps. "Throughout the war, and even before they [Christians] provided some intelligence and logistical support..." (Gabriel, 1984, pp. 128-130). Clearly, the ability of the IDF to gather and process both electronic and human intelligence was much improved over their attempts during the Suez City operation where the disposition and location of enemy forces was unknown. Improved ISR enabled the IDF to fight in a more efficient and effective manner as demonstrated by their successes against the SAM batteries, their denial of Syrian attempts to reinforce Beirut, and their accuracy in locating enemy strongpoints in Beirut.

The enhanced ISR capabilities noted above improved the precision fires employed by the IDF, especially with use of RPV's for real time data. There is some controversy regarding the character of Israel's fires. Michael Jansen

in his book, The Battle of Beirut, characterizes the fires employed by the IDF as indiscriminate, causing high civilian casualties, while Sharon and Gabriel argue that the IDF used restraint and precision when employing fires. The facts seem to lie in the middle. There were massive amounts of indirect fire and dumb bombs dropped on Beirut, causing numerous civilian casualties and collateral damage. The Israelis, to their credit, dropped leaflets to warn the civilian population to evacuate to safe areas and continually left open two passage lanes to allow for civilian evacuation; however, approximately 500,000 civilians remained. Jansen estimates that 5,000 civilians were killed up to August 12. While this figure is extremely high when viewed independently, the fact is that only 1% of the population, according to Jansen's estimates, were killed as a result of the siege (Jansen, 1983, p. 24). This statistic seems to argue that discretion was used on the part of the IDF to limit civilian casualties. One must remember that siege warfare involves the civilian population and civilians are likely to become casualties.

The siege saw the first large-scale use of precision laser guided munitions that surgically destroyed military targets. "Whenever urban areas were under attack, the

Israeli air force used either small-charge iron bombs or, more commonly, Maverick optically guided missiles, to minimize death and destruction...Because it is deadly accurate, it is ideal for hitting selected military targets within urban areas..." (Gabriel, 1984, p. 160). Also, the use of real time imagery from RPV's enabled IDF to pinpoint military targets, thus avoiding collateral damage. Much of the reported damage and casualties seems to have been greatly exaggerated. An American delegation of experienced combat officers stated that, "...the Israelis had taken great care to minimize civilian casualties and that the damage was relatively light" (Gabriel, 1984, p. 122).

Finally, the IDF employed restrictive rules of engagement on its soldiers during urban combat. The standard practice of clearing buildings with grenades or satchel charges before entering was prohibited in an effort to reduce civilian casualties. This practice certainly reduced civilian casualties, but as a consequence increased Israeli casualties.

Israel is inherently casualty adverse due to its small population. This aversion to casualties placed the IDF's strategy of reducing civilian casualties in conflict with protecting its soldiers, as noted above. How did the IDF

employ force protection in urban combat? The IDF utilized high volumes of coordinated fires to reduce its casualties. Also, Israel's complete air superiority enhanced close air support as well as casualty evacuation operations, leading to fewer casualties with a better chance at survival due to ease of evacuation.

The IDF medical evacuation system is probably one of the most efficiently designed in the world--a reflection of the IDF's sensitivity to the loss of human life...The object is to treat the wounded as close to the battlefield as possible prior to evacuating them. Israeli experiences have shown that if a soldier can be given advanced first aid on the spot, his chances of survival are much better... (Gabriel, 1984, pp. 205-206).

More importantly to the individual soldier than medical treatment is the ability to avoid injuries. General Dolev, Chief Medical Officer of the IDF, estimated that 55% of all casualties were caused by small arms fire. The Israelis made extensive use of flak jackets, reducing small-arms casualties by an estimated 20%. Also, burn casualties were a major problem for the IDF during the operation in Suez City. "The Israelis found, however, that the severity of burns in this war declined greatly because of improved tank design...the existence of high-technology Spectronix fire-suppression systems, and protective clothing worn by tankers" (Gabriel, 1984, p. 179). So,

technological improvements along with improved medical support improved force protection significantly enhancing the commanders' ability to sustain effective combat operations.

The IDF also improved its ability to maneuver in urban environments compared to the Suez City operation. The Israelis adopted a strategy of siege warfare with the limited use of strategic assaults as their form of maneuver. The PLO and Syrian forces also adopted the strategy of siege warfare in an attempt to force Israelis into a battle of attrition. However, the Israeli use of strategic assaults, precision fires, and an effective blockade allowed the Israelis to maintain the initiative, while forcing their enemies to withdraw.

The reorganization of tactical units to operate as combined arms teams in urban combat was the most significant enhancement that the IDF made in its ability to maneuver. Also, the limited use of ground forces against strategic locations enabled commanders to sustain the operation, while denying the enemy key locations. Rather than conducting an all out offensive throughout the city as in Suez City, the IDF identified key strategic locations in Beirut and systematically secured them. The best example

of such a strategic operation was the seizure of the Beirut Airport on August 1. The airport represented a strategic target for two reasons. First, by securing the airport the IDF eliminated an escape route for PLO leadership. Second, the airport could provide the Israelis a much-needed forward staging base to resupply and evacuate its soldiers. The operation was conducted utilizing the combined arms teams augmented with elite Golani infantry. Armor and air units isolated PLO strongpoints with withering direct fire, while supporting fires enabled infantry units to maneuver into positions outflanking PLO lines. By the end of the day on August 1, IDF forces had captured the airfield and pushed PLO forces from their largest base camp in Beirut (Gabriel, 1984, pp. 150-151). While Israeli maneuver was not characterized by the lightning speed of its past wars, the IDF demonstrated its flexibility and patience by employing a strategy of siege warfare supported by strategic assaults to secure key locations. By selectively moving and engaging its units against key strategic locations, the IDF retained the initiative, while avoiding the pitfalls of attrition warfare characteristic of the high casualty producing urban combat environment.

CONCLUSION

The Israelis greatly improved their ability to conduct urban combat in Beirut compared to their attack on Suez City. Improved C3 due to reorganization as well as the fielding of new equipment greatly enhanced the commanders' ability to command and control his units. The use of secure communications along with a centralized Corps command made tremendous improvements over C3 during the Suez City operation. The first time use of RPV's yielded tremendous results for Israeli intelligence and was key to the IDF's ability to isolate and attack forces in Beirut. The use of fires was much more effective due to use of precision munitions and real time intelligence from RPV's. Force protection was enhanced through new technologies, the reorganization of medical evacuation, and the training of combined arms teams in urban combat. The use of these combined arms teams to attack strategic locations was the key enhancement to maneuver. The improvement over the attack on Suez City was simple: armor forces can only play a supporting role in urban combat and can not make up the majority of the maneuver unit in an urban environment. Certainly the IDF clearly demonstrated that the

improvements it made in C3, ISR, Fires, Maneuver, and Force Protection were key to its success in Beirut and directly resulted in their ability to attain a combat efficiency of 97%.

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IV CHECHNYA I

Soviet Tactical Doctrine for Urban Warfare

Fighting in cities is neither a preferred tactic nor strategy for the Soviet armed forces. Soviet tactical doctrine, in the broadest sense, provides that if possible, the attack or defense of cities is to be avoided in warfare (Scharfen and Dean, 1975, p. 4).

THE HORRORS OF URBAN COMBAT

Russia's war with the breakaway Chechen Republic from 1994-19996 led to one of the worst defeats ever suffered by the Russian military. What were the leading factors that resulted in the Russian Army's defeat in Grozny, Chechnya? The leading cause for Russia's failure lies in the Army's poor state of readiness; however, there were serious failures in operational capabilities as well. Also, the hastened execution of the operation, brought on by political factors, led to many failures in the application of the Required Operational Capabilities (ROC).

DEFINING THE PROBLEM

The Russians lacked a well-trained joint force capable of operating in an urban environment. Therefore, the

Russian General staff attempted to force a conventional, mass force approach to the Chechen problem in an effort to overwhelm their enemy. This approach failed to take into account that President Dudayev, Chechen separatist leader, lacked the support of the majority of his people and had only fragmented support from the military. The massive use of force by the Russians against all Chechens, civilians and soldiers, solidified Dudayev's support and military control, turning what could have been a low intensity conflict into an all out war. Clearly the Russian leadership failed to identify the Chechen populace as the center of gravity in this conflict and hoped that a show of mass force would coerce Dudayev and his forces to capitulate. In this instance, the Russians' planning for the operation failed to conduct proper Intelligence Preparation of the Battlefield (IPB), which led to their failure to identify the Chechen populace as the center of gravity in this conflict. Proposed JP3-06, Operational Concept for Joint Urban Operations, states that, "IPB must consider the impact of noncombatants, whose presence in the urban area may be substantial and dynamic" (Chapter II p. 7). The heavy handed tactics implemented against the city of Grozny, from the indiscriminate artillery strikes to

conventional bombing sorties, caused numerous civilian casualties and enormous collateral damage. These tactics violate the operational capability of Fires as defined by JP3-06, which requires the fire support system to be "extremely precise" so as to reduce collateral damage. This misapplication of the principle of Fires by the Russians rather than coercing the Chechens into surrendering actually managed to strengthen Dudayev's support among his people.

BACKGROUND

The Chechens have a long history of violent resistance against their Russian conquerors, a resistance that has recently manifested itself with the battle for Grozny in 1994-96. The Chechens were annexed in 1859 after bitter fighting with Czarist Russia. The Chechens never forgave their Russian conquerors for the blood that was spilled. The Chechen people continued to resist integration into Russian society. The Chechens understood their precarious position and patiently awaited the opportunity to rebel against a weakened Russian Empire. This opportunity first arose during the Russian Civil War, 1917-1920, during which the Chechens declared their independence and established a

"theocratic democracy," until the Red Army was able to reconquer the region. Being a patient people, the Chechens continued to resist and await another opportunity. They did not have to wait long and found themselves fighting against communist Russia alongside Nazi Germany. "For this treachery, the entire people was deported to the deserts of Central Asia. It is estimated that 30-40% of the population died either during transit or in the brutal conditions of forced exile." This brutal treatment by Russia further solidified the ethnic hatred between these cultures and once again the Chechens found themselves waiting for another opportunity to throw off the yoke of Russian control (Finch, 1996, p.2).

This opportunity presented itself in November 1991 when Boris Yeltsin, President of the Russian Republic, grab for political power from Mikhail Gorbachev, President of the Russian Federation. Yeltsin's appeal was for Soviet Republics to declare autonomy; thereby, no longer being a burden on the Russian State. Yeltsin declared that Soviet republics should "take all the sovereignty they could swallow," which led Dudayev to declare Chechen independence (Thomas, 1999, p. 89). While Yeltsin's appeal was to Soviet Republics, he did not intend for his overtures to

include Russian Republics such as Chechnya. Over the course of the next two years the impotent Russian State was unable to intervene and Dudayev was able to establish political control within Chechnya. The issue of Chechen independence remained a thorn in the side of President Yeltsin and threatened his political career at home. Yeltsin responded by declaring a state of emergency on November 7, 1991, and deploying an Airborne Brigade to capture the airport in Grozny in the hope of coercing the Chechen leadership into capitulation. This anemically inferior force was rapidly surrounded by numerous Chechen National Guard forces and was completely cut off from Moscow. Unwilling to take any further drastic measures and trying to avoid a slaughter, the Russian Parliament rescinded Yeltsin's state of emergency, thus averting a military disaster at the Grozny airport. Not only did this attempt at coercion fail to overawe the Chechen rebels, but it also led to the Russians' surrender of all their military hardware and supplies garrisoned within Chechnya in exchange for freeing the Russian Paratroopers, (Antal, 1999, pp.29-30).

Undeterred by his past failures in planning military operations, Yeltsin brought matters to a head when his

overt coup attempt on November 26, 1994 made up of primarily Russian "volunteers" and some Chechen dissidents failed. Dudayev paraded 21 Russian soldiers in front of the international press and thumbed his nose at Yeltsin's demands for Chechnya's immediate surrender (Antal, 1999, p. 31).

Having learned nothing from their previous military embarrassments, President Yeltsin and his Russian Army launched an uncoordinated assault to crush Dudayev and his followers.

The indignity and embarrassment over the exposure of Russian involvement caused [Yeltsin]...to order troops to start moving into Chechnya on 11 December. Planners had less than two weeks to move and position forces and supplies. By New Year's Eve, Russian forces had Grozny surrounded on three sides and entered the city from the north, moving headlong into hell (Thomas, 1999, p. 2).

PLANNING THE BATTLE FOR GROZNY

As Major Finch aptly alludes to in his article *Why the Russian Military Failed in Chechnya*, the haste in which the Russians planned and executed the offensive against Chechnya, "resulted in considerable confusion in command and control which plagued the Russian military throughout the entire 21 month conflict...This lack of preparation

resulted in a near knock-out blow to the Russian forces..." (p. 2). By not taking the time to adequately plan for and coordinate the complex operation, the Russians doomed themselves to failure. Expectations by Yeltsin and Defense Minister Grachev to quickly seize Grozny and capture Dudayev in order to avoid a guerrilla war were unrealistic. General Grachev sent General Vorobyov, Deputy Commander of Russian ground forces, to report on the state of military readiness for this operation. General Vorobyov reported to Moscow that, "whoever ordered the operation should be investigated for criminal irresponsibility," and resigned following his report rather than taking command of an "unpopular invasion that showed clear signs of imminent failure" (Antal, 1999, pp. 32-33).

The Russian General staff knew that it faced an unconventional but well organized enemy; however, the timeline forced upon them by Yeltsin and Grachev led them to take a conventional approach in the hopes of surprising the Chechen rebels with overwhelming force.

THE INITIAL ASSAULT

The assault on Grozny was a complex operation due in part to two factors. First, Grozny is a rather dispersed

city encompassing over 100 square miles with numerous multi-story buildings, industrial parks, and a large oil-refining center. Second, The Russian's plan of attack consisted of four simultaneous attacks into and around the capital with four groups: Sever, Zapad, Vostok and Spetsnaz, rather than simply isolating the city and gradually attacking along one axis to secure key objectives (Antal, 1999, p. 33). The Russian plan counted on surprise and the quick seizure of the city in "one fell swoop." Of the 40,000 troops available, only 6,000 actually entered the city. How did the Russians expect to attain surprise when they had been fighting the Chechen resistance for the past two weeks (Thomas, 1999, p. 2)?

The Chechens were not surprised and defended Grozny with approximately 6,000 soldiers along three defensive lines, outer, middle and inner. These soldiers occupied prepared defensive positions on rooftops and basements in order to avoid direct fire from Russian tanks, which were unable to elevate or depress their gun tubes to hit these defensive positions. The Chechens may have lacked a formal standing army, but most of their soldiers and officers previously served in the Russian military. These soldiers were well disciplined and committed to their cause. The

Chechens were ready and "rose up to oppose the Russians...to defend their [Chechen] families and homeland from a historic oppressor". (Antal, 1999, pp.32-34).

The initial assault began on the night of December 31, 1994. The 131st Maikop Brigade met no organized resistance and was able to reach the train station, while the rest of Group Sever continued on to the presidential palace where they halted and awaited further instructions. The men remained in their vehicles on this cold night and their vehicles remained in column formation "as if they were in a motor pool," while the rest of the vehicles were strung out along the narrow streets of Grozny all the way back to the line of departure. Commanders briefed their soldiers that Chechen resistance would dissolve once the objectives were secured; therefore, little or no security measures were taken. Group Zapad was not as successful and advanced only four blocks before it was halted by severe enemy fire. Group Vostok moved only a few kilometers before it halted for no legitimate reason. Group Spetsnaz landed in the mountains in order to support the mechanized drive into Grozny, but soon became lost and after several days of wandering surrendered to Chechen soldiers (Antal, 1999, pp. 34-36). This failure to isolate Grozny left the Chechen

soldiers' lines of communications and re-supply open as well as their avenue of escape.

On the cold dark morning of January 1, 1995, the Chechen soldiers counterattacked. Utilizing innovative hunter-killer teams, consisting of 3 men, one sniper to provide security, one machine gunner to provide suppressive fires, and one anti-tank gunner to destroy Russian vehicles, they systematically destroyed Group Sever. Due to the Russians' lack of security they were caught totally off guard and were virtually annihilated. Of the 1,000 soldiers of the 131st Maikop Brigade nearly 800 lost their lives and 20 of 26 tanks, 102 of 120 BMP's and other armored vehicles were destroyed (Thomas, 1999, p. 2). The Maykopskaya Brigade losses were even worse and according to one Russian ground commander the brigade, "...disappeared in the fire. The assault forces lost their nerve" (Antal, 1999, p. 36).

The final tally of Russian killed and wounded at the end of the disastrous initial assault was high. Group Sever was virtually annihilated, the elite Spetsnaz Group captured, and the moral of the remainder of the assault force crushed. Many commanders were relieved following this disastrous defeat to include Major General Petruk,

commander of Group Zapad. This obvious attempt to shift blame by General Grachev was transparent and according to one Russian soldier, "...the Russian Army was on the verge of refusing to obey the ridiculous orders of its commanders and the government" (Thomas, 1997, p. 3). Command and Control was tenuous at best.

THE FATAL BLOW

Rather than licking their wounds and regrouping, the Russian leadership pressed the attack in an even more disastrous fashion. Thoroughly embarrassed by their defeat, the Russians lifted all restrictions on fires and followed the age-old strategy of "no quarter asked, none given." Because the Russians lacked a well-trained combined arms team skilled in urban combat, they reverted to sheer firepower as the means of bringing the Chechens to their knees. Unrestricted bombing began around the clock, artillery fire reached a reported 4,000 rounds per hour, and Russian tanks leveled buildings with no regard for collateral damage or civilian life. These tactics gained Russia control over the charred remains of Grozny, but failed to capture Dudayev or bring about a quick end to Chechen opposition. In fact, the heavy handed tactics

employed by the Russians increased Dudayev's support amongst the Chechen population and according to one Russian press release guaranteed a long drawn out guerrilla war:

A guerrilla war in Chechnya has become inevitable now. It is no longer Dudayev's supporters but the whole people, the common Chechens that are fighting now. Many of them have lost their children, wives and mothers, and they are prepared to fight for the rest of their life [SCI] (Thomas, 1997, p. 22).

THE PLANNING PROCESS

By not taking the time necessary to develop the situation, the Russians compounded their initial mistake and launched headlong into one bloody defeat after another. They failed to take the time to conduct proper ISR operations or to utilize the available human intelligence to further develop the situation. The hastened attack led to shortfalls in C3 and did not provide the necessary time to maneuver forces into position to isolate the city. If the Russian leadership had taken the time to properly analyze the situation rather than rushing their attack plans along an unrealistic time line, they could have avoided the serious losses sustained in the grueling urban combat and possibly have avoided the war altogether.

Had the Russians conducted proper IPB, they would have found that Dudayev was not the pivotal objective, but rather control of the Chechen populace was the real center of gravity. The Russians did attempt to use these dissidents during the coup attempt; however, the Russians failed to unify this support and their heavy-handed tactics drove these dissidents to support Dudayev. Once they identified that there were large segments of unrest within Grozny, they could have used these dissidents to provide valuable intelligence and fight against Dudayev, rather than relying on a massive show of force to win the war. As Major Finch aptly points out in his article *Why the Russian Military Failed in Chechnya*, "...only a fraction of the Chechen population harbored any open hostility toward Russian leadership at the onset of hostilities...many Chechens supported the early Russian efforts to unseat Dudayev. The Chechen president had succeeded in bringing the region to the brink of economic collapse." By misidentifying the center of gravity, the Russians set out on a disastrous course of attrition warfare.

THE LACK OF OPERATIONAL CAPABILITIES

While the poor state of the Russian Army's readiness was the primary cause for the Russian Army's initial defeat, the failure of the command structure to realistically plan and coordinate this complex operation, due in part to political pressures imposed by the Yeltsin regime, also contributed significantly to Russia's defeat. The lack of coordination and poor planning led to serious failures in the operational capabilities of Command, Control and Communications (C3); Intelligence, Surveillance and Reconnaissance (ISR); and Fires. The Russians' poor tactical execution of the assault led to numerous problems for the Russian leadership. The most devastating problems occurred in C3 and ISR. Earlier we identified and defined unity of command as one of the shortfalls within the Russian leadership. Lack of command and control cost the Russians untold numbers of losses. General Grachev was responsible for the overall battle plan, yet he never stepped outside of Moscow to analyze the situation. Also, he failed to provide unity of command to the ground force commander. For example:

...three powerful ministers (Defense, Internal Affairs, and Internal Security) all had troops in the fight but failed to integrate their

efforts...'The enormous losses of the early days were caused by the poor level of professionalism of the command/staff element, which underestimated the enemy and was staggeringly negligent in coordinating actions among individual units and subunits'..." (Thomas, 1999, p. 5).

As defined in FM 100-5, the principle of Unity of Command requires a single commander with the requisite authority to employ all forces towards a unified purpose and unity of effort for every objective. Unity of command within the Russian Army was marginal at the time, due in part, to mass resignations, multiple commands, and political maneuvering.

This lack of unity led to a lack of control and the inability to establish clear boundaries between units, which resulted in several cases of fratricide and incidents in which units were pinned down by friendly fire for hours. One Russian expert identified the lack of integrated communication systems and navigation computers as reasons for such friendly fire incidents (Thomas, 1999, p. 8). Had the Russians properly planned, coordinated and equipped their soldiers, such incidents could have been nearly eliminated and great improvements would have been made in command and control.

Another serious failure in C3 that caused the Russians to lose the initiative was the fact that they did not use secure communications. "This misstep obviously allowed the Chechen force not only to monitor all transmissions and thus prepare for what was coming next, but also to insert false messages in Russian communications traffic" (Thomas, 1999, p. 9). This clearly explains the rebels' ability to stay one step ahead and their ability to force the Russians to react to misinformation. The rapid execution of this operation led to inadequate planning for communications that caused serious breeches of security, resulting in the loss of C3 and was responsible for untold deaths.

The Russians failed to execute an effective ISR plan. Thomas notes this failure as "perhaps the most serious deficiency...The Russians had almost no information about the situation in the city...Reconnaissance was poorly conducted...this shortcoming in the course of combat actions, [led] to delays in operations and reduced effectiveness" (1999, pp.5-6). This oversight was totally inexcusable, because the Russians failed to exploit the human intelligence that could have been easily provided from the large ethnic Russian population within Grozny, not to mention from Chechens who were sympathetic to Russian

efforts. Had the Russian leadership taken the time to develop an accurate picture of the situation they could have easily increased their effectiveness and efficiency, not to mention the possibility of averting the whole bloody urban conflict.

The lack of intelligence, surveillance and reconnaissance (ISR) nearly led to the complete destruction of Russian forces. FM 100-5 states that,

Intelligence is fundamental to effective planning, security, and deception. Intelligence operations are the organized efforts of a commander to gather and analyze information on the environment of operations and the enemy. Obtaining and synthesizing battlefield information prior to beginning operations is a vital task. Assembling an accurate picture of the battlefield requires centralized direction, simultaneous action at all levels of command, and timely distribution of information throughout the command.

Due to their gross miscalculations on the size and capabilities of the Chechen forces, the Russian forces lost one third of their fighting force within the first two days of battle, a fact which nearly broke the morale of the whole Russian Army.

These shortfalls in acquiring intelligence and conducting intelligence operations caused the Russians to lose the initiative, which is critical when conducting offensive operations. As defined in FM 100-5,

Initiative sets or changes the terms of battle by action and implies an offensive spirit in the conduct of all operations. Applied to the force as a whole, initiative requires a constant effort to force the enemy to conform to commanders' operational purposes and tempos, while retaining freedom of action. It means depleting the enemy's options, while still having options of their own. This requires leaders to anticipate events on the battlefield so that they and their units can act and react faster than the enemy...

The lack of an accurate picture of the enemy's situation and future intentions left the Russian military reacting to Chechen initiatives. Initiative is one of the key principles of offensive operations; however, the Russians were unable to exploit their force advantages, because they always seemed to be one step behind the rebels. As stated earlier the Russian plan of attack counted on surprise. If surprise was crucial to mission success it was ludicrous for the Russian leadership to think that they had any hope of attaining surprise after they had been actively engaged with Chechen forces for over two weeks. Not only were the Chechen forces not surprised, they had developed a well-integrated and prepared defensive plan. The entrenched rebels easily defeated the mounted armored columns of the Russian army. The Russians reliance on a mass show of force completely backfired. The lack of

a well trained combined arms team to conduct urban combat led to the defeat of the initial assault.

The Russian inability to maneuver in the urban environment led them to employ mass fires. As discussed earlier, the Russian's misapplication of mass fires compounded their failure to defeat Dudayev and "as the war and the destruction progressed, the Chechen population...began to consider the Russian military as the enemy. In their sloppy attempt at chopping off the head of the Chechen leadership, the Russian military...only agitated Dudayev supporters, but also alienated nearly the entire Chechen/Russian population" (Thomas, 1997, pp. 5-6). If the Russians were able to apply the operational capability of precision fires, they could have avoided this collateral damage that caused the balance of power to shift in Dudayev's favor.

The loss of international support was another effect compounded by the misapplication of mass fires and demonstrated the Russians' inability to isolate the area to win the information war. Dudayev's manipulation of the international press and the Russian's complete lack of "spin control" led to the Chechens' complete victory in the media war, which led to international support for their

cause in monetary as well as direct military support from other Muslim nations. The negative image portrayed on international news coverage of the Russian's bombardment of Grozny was viewed by the European community as barbaric, and led to the Political Council of Europe's decision to deny Russia's admission into the Council of Europe (Thomas, 1997, pp. 28-29). Furthermore, economic assistance from Europe was postponed during the conflict, which led to greater hardships at home for many Russians.

Poor training, old equipment and lack of technology led to poor force protection. Russian mounted forces suffered terrible casualties as RPG's ripped through the hulls of these old vehicles, turning them into burning coffins. Also, the lack of navigational computers and the lack of C3 led to several cases of fratricide as noted above. In order to reduce casualties and fight more effectively in the future, the Russian military will need to increase its survivability through better training, organization and enhanced equipment.

CONCLUSION

While this battle demonstrates that there are several required operational capabilities necessary for conducting

efficient and effective urban operations, it also identified isolating the city and sufficient time for planning and coordination as critical requirements necessary to conduct successful urban combat. C3 failed to provide the commander with the necessary organization, authority and communications network that is critical to the Joint commander's ability to plan and execute urban combat. Second, conducting proper ISR operations are imperative throughout the operation. Third, urban combat requires well-trained combined arms team to maneuver and fight in urban terrain. Fourth, fire support capabilities must provide for precision delivery to better support the close fight and minimize collateral damage. Finally, increased survivability and emphasis on reducing casualties through better training and equipment are critical to improving force protection capabilities.

Had the Russian General Staff properly prepared for this operation rather than reacting to unrealistic demands from political officials, would the result have been any different? Certainly they could have used the extra time to develop human intelligence assets within the city. Also, they could have rehearsed for the operation, giving their soldiers the much needed training and cohesion that

was absent in the assault force. The extra time to plan could have been put to good use in mobilizing the needed assets as well as coordinating for the critical communications and other combat service support required in conducting the operation. While extra time may have helped, it is no excuse for the poor state of readiness of Russian forces to conduct this operation, especially considering the circumstances leading up to the crisis.

This battle clearly demonstrated the need to isolate the urban center in both the physical and electronic sense. The lack of physical isolation allowed the Chechens to resupply and reinforce, while the lack of electronic isolation allowed the Chechens to win the information war.

After suffering a stinging defeat in Chechnya, would the Russians be able to apply solutions to their problems to help them fight more effectively in future urban conflicts? The following case study on the second campaign for Grozny clearly demonstrates that the Russians improved their ability to conduct successful urban combat operations.

V CHECHNYA II

BACKGROUND

By leaving the political matter of Chechnya's independence unsettled following the expulsion of Russian troops from Chechnya in 1996, the Russian government only delayed the inevitable. From 1996 until Russian forces once again invaded Chechnya in September 1999, Chechnya's government continued to push for independence from Moscow. The political situation in Chechnya was tenuous as President Maskhadov had little authority over the Muslim warlords, who maintained true authority via the AK-47.

Chechnya had deteriorated into a lawless republic ruled by large bands of Muslim guerillas. Correspondent Holger Jensen states, "Chechnya is not so much a country, or a Russian republic, as it is a criminal enterprise. Almost everyone is armed and it is often hard to distinguish political bosses from mafia bosses. Kidnapping for ransom appears to be the only growth industry..." (Jensen, 1999, p. A10).

In September 1999, the Russian government blamed Chechen terrorists for several bomb blasts that rocked Moscow's residential neighborhoods, killing about 300

people. Even though no official evidence was brought against Chechnya, the Russian attitude had turned against the Chechens due to their wave of kidnappings, border incursions, and their claimed linkage to the bomb attacks in Moscow. "Unlike the earlier war, the current campaign has public support among most Russians. Four September apartment bomb blasts that killed 300 people have been blamed on Chechen militants, and many say they should be destroyed at all costs" ("Russian Troops," 1999). Finally, Chechen military incursions into neighboring Dagestan in August resulted in the deaths of about 250 Russian soldiers and forced the Russian military into action. The retaliatory bombing raids against Chechen military targets were soon followed by a large-scale military offensive in September 1999.

The Russian campaign to recapture Chechnya bears striking resemblance to Israel's war against the PLO in 1982. Following numerous terrorist attacks and border incursions, the Israelis launched retaliatory bombing raids against the PLO, followed by a large-scale ground offensive. The tactics and reorganization of Russian forces also reflect similar changes made by the Israelis. Did the Russians borrow a page from the Israel's defense

strategy? What did the Russians do differently from their failed war in 1996 that led to their successful capture of Grozny in 2000?

THE SECOND CAMPAIGN FOR GROZNY: PHASE I

After the Russian government successfully gained public support for military action against the Chechen militants, something the Russians failed to do in the previous war, they were able to launch their military campaign to recapture Chechnya. Like the Israelis in 1982, the Russian government attempted to disguise its objectives as retaliatory air strikes intended to deter further Chechen attacks. President Putin stated that there would be no large-scale invasion. He added, however, "certain measures will be considered" if the air attacks fail to deter the Chechens (Jensen, 1999, p. A10). This initial phase of the operation enabled the Russians to strike at key military targets with impunity due to their successful media campaign characterizing the Chechens as terrorist. Also, they were able to use this time to finalize preparations for their ground offensive, rather than

stumbling into the operation as they had in 1994 without proper preparations.

PHASE II

The second phase of the operation was smoothly executed. Russian forces advanced in a well-coordinated attack seizing key villages and strategic locations outside of Grozny. The Russians changed their tactics from massive frontal assaults that caused numerous casualties during the 1994-96 war, to the use of precision and massed fires to clear areas of enemy resistance prior to occupation. Defense correspondent Jonathan Marcus for BBC News states that, "The Russian strategy has been to use both fixed-wing aircraft and attack helicopters as well as a whole array of both towed and self-propelled artillery systems," to fight the war at a distance (Marcus, 1999). This strategy of fighting the war at a distance took advantage of the Russians superiority in firepower, while minimizing the disadvantage of having poorly trained troops conducting house-to-house fighting. Marcus notes,

[The] Russian generals are playing to their strengths; seeking to use firepower to clear areas of Chechen fighters while avoiding the sort of close-up infantry combat where the motivation

of the Chechens makes them vastly superior to the relatively poorly trained Russian conscripts (Marcus, 1999).

This tactic can be directly linked to Russia's success. Russian affairs analyst Stephen Dalziel states, "The key reason why the operation is going well and is perceived by the Russian people to be going well is that casualties for the Russian army have been low". He notes that official government figures on KIA's up to November 1999 were less than 300 (Dalziel, 1999). The second phase of the operation was highly successful with low casualties and ending with Russian units surrounding the capital in an effort to besiege the city of Grozny.

THE SIEGE OF GROZNY

The siege of Grozny is a major strategic difference between the 1995 and 2000 campaigns. While there are many tactical differences from the reorganization of units, C3, and maneuver warfare, the strategic difference was the ability of Russian forces to isolate and besiege Grozny. In 1995 the Russians failed to close off the Southern approach to Grozny, allowing Chechen forces to resupply and maneuver at will. Also, the Russians failed to isolate

communications with Chechnya, leading to Russia's public affairs debacle and ultimate loss of support for the war by the Russian people. By November 25 1999, CNN reported that Russian forces had almost surrounded the capital and were "tightening a noose of troops, armor and artillery around the town for several weeks" ("Russian Troops," 1999). They also reported that the Russians had cut off electrical power in an effort to reduce support for Chechen rebels. The Russians were also quick to cut off almost all communications with Chechnya, isolating Chechnya in a much more effective manner than in 1995. The Russians seemed content to wait for opportunities rather than attempting to bull their way through the city as they had in 1994-96. Daniel Williams, war correspondent, confirmed this strategy and stated, "This time, military officials insisted they would be more deliberate in their advance on Grozny so as to avoid the confusion and casualties that marked the first offensive" (Williams, 1999, p. A7). The military leadership seemed to have vastly improved their C3 over their defeat during the first campaign for Grozny. Russian commanding General, Viktor Kazantsev, reiterated that, "There will be a planned, prepared operation to liberate Grozny" ("Pro-Moscow Chechen," 1999).

From December 1999 through early February 2000, the Russian military laid siege on Grozny. Like the Israelis in 1982, the Russians chose not to engage their enemies on a large scale, but utilized specialized, combined arms teams to seize strategic locations, such as the train station and airport. Enormous barrages and close air support preceded these assaults in an attempt to limit Russian casualties. Improved reconnaissance efforts increased Russian success by identifying enemy positions with small recon-teams that drew enemy fire then hit the enemy positions with artillery fire. Ruslan Makhmayev, a Chechen unit commander in Grozny, said that his most devastating losses came from Russian bombing, not direct combat. "Russian troops prefer not to engage in close combat with us. As soon as a firefight starts, they immediately back off and call in aircraft or artillery. They prefer to bomb and not to fight" (Nunayev and Paddock, 2000, p. A1).

The combination of a well planned and supported assault, reorganized combined arms teams, improved ISR, and the limited uses of ground forces to capture strategic objectives, allowed the Russian military to successfully capture Grozny on February 6, 2000. The Russians had an

estimated 100,000 troops involved in the siege of Grozny. Official casualty reports in late January 2000 estimated that 544 soldiers had been killed and another 1,513 wounded in the four month campaign, but were later updated on January 26 to 1,173 killed with no official report on casualties ("Russians Admit," 2000). Taking into account that the Russians reported less than 300 KIA's prior to the siege that would place the total KIA's at approximately 900 for the Grozny area. A soldiers' mothers organization refutes these figures and said that at least 3,000 soldiers had been killed. Based on independent sources such as morgue reports and the number of coffins delivered, the higher estimate by the mothers' organization seems to be more accurate than the official casualty figures ("Russians 'Concealing,'" 2000). Even if we use the higher figure of 3,000 KIA's and 12,000 wounded (to reflect the 3 to 1 ratio of wounded to KIA, reflected in the initial official reports) the total casualties would be 15,000 out of a force of 100,000, leaving the units at 85% mission capable. During the first campaign for Grozny, the Russians sustained nearly 50% of its forces killed, wounded or captured in the initial assault to capture the city. As demonstrated by their ability to pursue the Chechen rebels

into the mountains, there can be no doubt that the Russian units were mission capable and prepared to conduct follow on missions. Was Russia's success during this campaign the result of improved operational capabilities?

REQUIRED OPERATIONAL CAPABILITIES

The Russian military greatly improved its C3 capabilities. After receiving a briefing at the Army War College, New York Times analyst, Steven Myers, reported that an American general said, "In this campaign the Russians were exhibiting better command and control, effectively coordinating complex operations" (Myers, 2000, Sec. 4, p. 5). The reorganization of Russian command structure added to this efficiency. During the 1994-96 campaign the command structure was divided between three ministries; Defense, Internal Affairs, and Internal Security, which each retained C2 over its own tactical ground forces. This command structure greatly increasing the complexity of planning and executing operations; however, the siege of Grozny in 2000 utilized one unified commander who exercised tactical control over all the forces involved in the campaign. This unified command

simplified the whole command structure. Also, the Russian General Staff was more unified and aligned with the government than during the 1994-96 campaign that saw mass resignations from the officer corps. Deputy Chief of Staff, General Manilov, stated, "As never before, the state and the military are working in concert" ("Generals Behind," 2000). This unity was further demonstrated when President Putin paid a surprise visit to his troops in Chechnya on 1 January 2000, greatly busting the morale of his forces.

The reorganization of tactical units also enhanced command and control by providing the commander with combined arms units', consisting of infantry, armor, engineer, reconnaissance and special forces soldiers, capable of conducting the complex tasks associated with urban combat. The reorganization eliminated the difficulties in controlling ad-hoc units that were thrown together during the 1994-96 campaign.

Communications also seemed to be greatly improved. First, there were several reports during the first campaign for Grozny outlining the failure of Russian military to provide secure communications for its units, resulting in the death of numerous soldiers due to the lack of security

(Thomas, 1997, pp. 8-9). Chechen rebels were able to infiltrate Russian communications to intercept messages and insert false messages. During the latest campaign, however, there have been no reports of Chechen rebels being able to spoof Russian Communications. Also, Chechen rebels utilized communications with the Western press to win the propaganda war against Russia during the first campaign; however, the Russian military was able to effectively isolate communications with and win the propaganda war against Chechnya during this latest campaign. BBC News reported on 22 October 1999 that the Russians had cut off almost all communications with Chechnya, "which makes Chechnya much more isolated than ever before" (Waal, 1999). While the Russians still received some political pressure from the West, the Russian's ability to present the Chechen soldiers as terrorists and the campaign to rid Chechnya of these terrorists greatly reduced the political fallout from the West. For example, during the first campaign for Grozny, the European Union pulled its economic support package from Russia in protest; however, no such support was withdrawn during the second campaign.

While vast improvements were made in Russian C3 capabilities, little evidence indicates that they made such

improvements in ISR. The Russians did appear to make better use of small reconnaissance teams to locate enemy positions; however, these units suffered high casualties as a result of their direct probes. According to a press report:

Russian troops trying to edge their way into Chechnya's devastated capital Monday met fierce resistance from rebels...The Russian military said federal troops were probing rebel positions in Grozny with small reconnaissance teams, drawing enemy fire to better locate the rebels' defenses ("Russian Forces," 1999).

Such probes led to high casualties such as a reported "reconnaissance in force operation" in Grozny's strategic Minutka Square, where the press reported that over 100 Russian soldiers were killed (Williams, 1999, P. A32). Major General Shamanov, commander of the Western Group, stated that he would continue to use commando and reconnaissance troops to infiltrate the city to help support his operations (Gordon, 1999, p. A12). This account leads one to believe that there was a shortage or lack of use of Remotely Piloted Vehicles (RPV's) that the Israelis used so effectively to help them defeat their enemies during the siege of Beirut. Improvements were made in the use of human intelligence, as the Russians did utilize Chechen militia to spearhead many of their assaults

into Grozny. The militia's knowledge of the area provided the commander better situational awareness. However, if the above casualty report is accurate, it would represent nearly one third of total KIA's for the battle for Grozny. Clearly, more improvements are needed in Russian ISR capabilities in order to bring down the casualty rate.

More improvements also seem to be needed in the Russian's indirect fire capabilities as well. While they improved their strategy of employing long range fires to reduce known enemy targets, improvements in technology seemed to be lacking. "This grueling form of combat has seen few innovations. Most of the Russian weaponry used is well-known from earlier campaigns" (Marcus, 1999). Russian officers complained about the outdated munitions being used. A Lieutenant Colonel stated, "It's useless to pound the rebels with shells dating back to 1952...These shells produce only noise and have very little destructive power. I haven't seen newer shells, say at least from the 1980s used here" ("Chechens Use," 2000). However, there are reports that the Russians were stepping up their use of precision munitions and deploying their most recent attack helicopter, KA-50, in support of operations (Marcus, 1999).

Also, the Russians employed tanks and multi-barreled anti-aircraft guns in the direct fire mode with good success.

Collateral damage was high due to the nature of long range bombardment; however, the Russians employed two tactics to counter the negative effects of the collateral damage. First, Russian troops struck deals with various towns giving the towns amnesty from attacks for their promise not to support Chechen rebels. A Russian Colonel who was an infantry commander, stated that his troops had a great advantage over the last war:

The support of villagers. Towns that refused to take in rebel fighters were spared bombardment, a fact made clear by a ride on a BMP-2 troop carrier...To the left was a train station and a cluster of houses, all destroyed, where the Chechens had taken up positions. To the right was the unscathed village of Tsentora-yurt, which made a deal with the army (Filipov, 1999, p. A12).

By striking such deals, the Russians avoided the public relations disaster that they had during the first campaign and presented themselves as compassionate towards the Chechen civilians' plight. Second, the Russians, like the Israelis in 1982, maintained two corridors to evacuate civilians from the city of Grozny, and even suspended the bombardment during certain hours to facilitate their safe passage. For example, "Russian forces had suspended air

and artillery attacks against the city to encourage civilians to flee. But to keep up military pressure on the Islamic militants there, the Russians now intend to stop the bombardment for several hours a day and then start up their attacks again" (Gordon, 1999, p. A12).

Improvements in tactical employment, the use of small numbers of precision munitions, and the granting of amnesty that reduced collateral damage helped improve Russian fires. However, the use of old munitions and massed indirect fires caused enormous collateral damage. Overall, the Russian's ability to utilize effective fires improved during this campaign. For example, the Russians lured the rebels into a trap by pretending to give the rebels a map containing the routes through the minefields surrounding Grozny in exchange for \$100,000. When the trap was sprung, the rebels were caught in the middle of the minefield and were hit with intensive artillery barrages, resulting in over 600 rebels killed or severally wounded to include several top warlords (Turpalov, 2000, p. 1A). During this campaign, coordinated fires improved, helping to reduce Russian casualties by clearing enemy areas of any significant resistance; however, improvements in precision fires appear to be minimal.

While only minimal improvements were made in the Russian's fire capability, they did make significant improvements in their maneuver capabilities. The most dramatic difference between the two campaigns is the type of maneuver employed. During the first campaign, the Russians choose to use a show of force, driving their vehicles in column formation into downtown Grozny. The results were disastrous with an entire regiment destroyed in the first day of battle. The Russians continued to use frontal assaults throughout the campaign, leading to high casualties. The Russians improved their ability to maneuver from the first campaign, and like the Israelis in 1982, the Russians choose to engage enemy forces from a distance and laid siege to Grozny. General Kazantsev, Russian military commander in Chechnya, stated that the move into Grozny would be deliberate so as to avoid the confusion and massive amounts of casualties sustained in the first campaign (Williams, 1999, p. A7). He also stated, in an earlier interview, "There will be a planned, prepared operation to liberate Grozny" ("Pro-Moscow Chechen," 1999). This approach to liberating Grozny led to strategic attacks against key centers such as the airport,

the train station, and the strategically important Minutka Square that controlled the center of the city.

Improvements were also made in the reorganization of Russian tactical units into combined arms teams with special operation forces and Chechen militia spearheading the assaults. According to Jonathan Marcus, defense analyst for the BBC News:

This time the Russians have taken a much more cautious approach, relying upon long-range artillery and air power to soften up Chechen resistance. Lighter, more maneuverable armored vehicles are in the vanguard with self-propelled, multi-barreled, anti-aircraft cannons proving themselves an ideal weapon for city fighting (Marcus, 2000).

General Shamanov, commander of Western Group, disclosed that he would conduct reconnaissance and special operations to infiltrate the city. He said, "We will try to establish a foothold on the outskirts and get the civilians out by military transport. After they are out, reconnaissance and other special operations will be carried out over two to three weeks" (Gordon, 1999, p. A12).

These improvements in maneuver were key to Russian's success in capturing Grozny. The increased lethality and survivability of the reorganized units were crucial to capturing the strategic centers in Grozny. Long-range fires combined with strategic assaults were the backbone to

Russian improvements in maneuver and led to far fewer casualties than in the first campaign.

Improvements in force protection also helped lead to Russia's success. Casualty aversion by the Russian military was a significant factor during this campaign. Major General Scales, commander of the Army War College, said, "This concern over casualties, which badly eroded public support during the first war, has been one of the most striking changes in Russian military doctrine in decades, showing a new sensitivity to the military's need for civilian backing" (Myers, 2000, Sec. 4, p. 5). Russian Defense Minister Igor Sergeyev placed the need for reduced casualties over the stringent timelines that the old Russian military were used to. He said, "The goal was not to meet any particular deadline, but to completely eliminate the rebels and minimize casualties among Russian soldiers" ("Chechen Snipers," 2000). During the first campaign, the pressure from the government to meet timeliness caused enormous casualties due to the lack of time to make proper preparations. With the Russian military and government's realization that the need to reduce casualties was greater than meeting unrealistic timelines, they were able to greatly reduced casualties

from the first campaign for Grozny. In order to reduce casualties, Moscow passed a law providing amnesty to any rebel who surrendered by February 1 (Gordon, 1999, p. A12). The Russian military also used a policy of granting amnesty to villages who refused to support the rebels, which not only reduced Russian casualties, but also reduced collateral damage to these areas as noted above.

Improvements in Force Protection were seen in the Russians' employment of lighter more maneuverable armored vehicles to include improved direct fire support provided by multi-barreled anti-aircraft guns. These vehicles increased the lethality needed by units in direct contact and the vehicle's increased maneuverability increased their survivability and reduced casualties. Russian special operation forces were equipped with flak jackets, adding to their survivability. Russians also utilized low-tech methods to increase survivability such as painting numbers on their uniforms to help identify friendly forces from rebel forces, who sometimes wore Russian uniforms ("Assault on Grozny," 1999).

Increased emphasis from the chain of command, improvements in technology, providing necessary equipment to soldiers, and low-tech methods all helped improve

Russia's force protection capabilities and helped lead to their success.

CONCLUSION

The Russians definitely improved their ability to successfully conduct urban combat from their first campaign in Grozny. Great improvements were made in C3 from the reorganization of command to more secure communications as well as the isolation of Chechen communications. Maneuver capabilities also saw dramatic improvements. The reorganization of tactical units and the use of strategic assaults were essential to Russia's success. Enhancements in force protection increased soldiers survivability and reduced casualties leading to greater support from the Russian people, something the first campaign lacked. While there were improvements made in ISR and fires capabilities, these improvements did not seem to lead to dramatic changes from the first campaign and were marginal in leading to Russia's success. The one exception was the strategic use of long-range fires to reduce enemy positions. While these fires created enormous collateral damage, they did reduce Russian casualties. The key to making their fires more

effective in the future will be Russia's ability to provide precision fires. Clearly the great improvements that the Russian's made in C3, maneuver and force protection, and to a lesser degree the marginal improvements in fires and ISR, directly led to their success against the Chechen rebels.

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VI CONCLUSION

The final analysis of the individual case studies reveals that by improving their Required Operational Capabilities (ROC's), both the Russians and the Israelis conducted successful urban combat. The ROC's were crucial to the success of the mission. However, while it is not necessary for a unit to be trained in all aspects of the ROC's in order to succeed, the Beirut case study clearly demonstrated that if a unit is well trained it will greatly increase its efficiency and reduce its casualties. The following diagram outlines the Russians' and Israelis' status on the ROC's.

Table 1. Analysis of Required Operational Capabilities

ROC	Suez City 1973	Beirut 1982	Grozny 94-96	Grozny 99-00
C3	Untrained	Trained	Untrained	Trained
Man	Untrained	Trained	Untrained	Trained
ISR	Untrained	Trained	Untrained	Practice
Fires	Practice	Trained	Practice	Practice
FP	Practice	Trained	Practice	Trained

The analysis of C3 proved that it was one of the most crucial elements in reducing casualties and increasing overall combat effectiveness. Clearly the lack of centralized command during the first Grozny campaign and the battle for Suez City, led to horrendous casualties due

to the disorganization of the Russian and Israeli forces respectively. The reorganized units and centralized command structures utilized by the Russian's and Israeli's during the second Grozny campaign and during the siege of Beirut greatly enhanced the C2 of the commander and dramatically reduced casualties. Finally, improved communications also led to greater success. The use of secure communications was crucial to the Russian's and Israeli's success in urban combat, while the lack of secure communications directly resulted in their failure to conduct successful urban combat due to the loss of surprise and initiative.

Being able to maneuver in urban terrain is also crucial to successful urban operations. The ability to maneuver in urban terrain improved dramatically for both the Russians and Israelis. Both forces reorganized their tactical units from large armor heavy forces, used in the initial battles, to smaller more agile combined arms units used in the final battles. Also, the manner in which these units were employed changed dramatically as well. The efficient strategic assaults of the second Grozny campaign and the siege of Beirut replaced the disastrous frontal assaults of the first Grozny campaign and the battle for

Suez City. These smaller and more agile combined arms teams had greater lethality and were able to move more rapidly than the larger conventional armored task force. The selective strategic use of forces allowed commanders to retain the initiative while remaining engaged, but also reduced the high casualties of the unsuccessful massive frontal assaults.

Intelligence, Surveillance and Reconnaissance (ISR) operations are the backbone to planning urban operations. The intelligence preparation of the battlefield (IPB) is crucial to the commander's understanding of the environment, terrain and enemy situation. The lack of ISR led to the dramatic initial defeats sustained by the Russian's and Israeli's during the first Grozny campaign and the battle for Suez City respectively. Subsequently, the Israelis greatly improved their ISR operations with both increased HUMINT and the use of RPV's and thus dominated the intelligence field and provided key information leading to Israel's success during the siege of Beirut. The Russians, on the other hand, only marginally improved their ISR capabilities. They did improve their use of HUMINT, but lacked remote sensors to locate enemy positions. They were forced to utilize small

reconnaissance teams to draw enemy fire in order to locate enemy strong points. While this tactic enabled the Russians to locate enemy positions, it resulted in high casualties reducing overall combat effectiveness.

Coordinated, precision fires greatly add to the effectiveness of combat forces in urban combat. Both the Russians and Israelis lacked a well-coordinated and precise fire support capability during the first Grozny campaign and the battle for Suez City respectively. The Israelis did manage to improve their coordination and provided high volumes of close air support during combat operations with high precision during their siege on Beirut. The Russians were not able to provide improvements in precision to a great extent, but they did provide high volumes of well-coordinated intensive fires during combat operations. The Russians countered their lack of precision by isolating the battlefield from reporters, which enabled the Russians to engage in such bombardments with little political fallout. Their failure to do so in the first campaign led to enormous political pressure from the west to pull out and ultimately resulted in the loss of the Russian people's support. So, while the US certainly aspires to a higher standard of precision fires to reduce collateral damage,

there are other means, as the Russian showed, to reduce the fallout from mass bombardments.

Reducing casualties by increasing force protection helped lead to successful urban combat. The most notable improvement in all the case studies was the paradigm shift of the Russian military to avoid casualties. This enabled the Russians to maintain popular support for the offensive and increased their overall combat effectiveness by reducing casualties. The use of body-armor helped dramatically reduce casualties due to fragmentation. Also, the use of more maneuverable vehicles with improved armor led to increased lethality while reducing the casualties of mounted forces. Improved C3 along with visual identification markers reduced friendly fire casualties. By protecting the combat force, all these improvements helped lead to the success of both the second Grozny campaign and the siege of Beirut.

There was another critical element that the analysis of these four case studies identified as crucial to successful urban combat, the ability to isolate the urban center. The first campaign for Grozny and the battle for Suez City demonstrated that by not isolating the urban center, the enemy was able to reinforce and maneuver more

freely; thus, thwarting attacks on the urban center. Also, the first campaign for Grozny and the siege on Beirut demonstrated the need to isolate enemy communications in order to win the propaganda war. The Russian's inability to isolate Chechen communications with the West directly led to the growing disfavor of the war and ultimately led to the Russians' withdrawal. However, the Russians greatly improved their ability to isolate enemy communications in the second campaign, which led to Russia's propaganda victory and the eventual successful campaign. While the Israelis conducted a nearly flawless campaign in Beirut, their inability to isolate enemy communications led to extreme political pressures from the US to end the conflict, causing untold stress on the Israeli leadership. Had the Israelis countered the enemy's propaganda or isolated the enemy's communications, they could have greatly reduced these political pressures and been able to better focus their attention on the siege. The ability to effectively physically isolate the urban center in the battle for Beirut and the second campaign for Grozny were crucial to setting up an effective siege that led to the Israeli's and Russian's victory respectively. The major tactical differences between the failure to conduct

successful urban combat and the ability to conduct successful urban combat in these case studies was the ability of the attacker to isolate and lay siege to the city.

Finally, sufficient time for planning was another major asset needed to conduct successful urban combat. The ability to properly prepare and plan for urban operations was an essential element that led to the successful second campaign for Grozny and the siege of Beirut. Conversely, the hastily prepared and planned attacks of the first campaign for Grozny and the battle for Suez City directly led to their failures.

The proper execution of the ROC's were critical to conducting successful urban combat; however, without properly planning and coordinating for the complex task of urban operations or without properly isolating and laying siege to the city, successful urban operations cannot be conducted.

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